Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

The value of these contributions is unfortunately impaired by the small size and diagrammatic character of the illustrations.—L. W. SHARP.

Morphology of Tetraclinis.—SAXTON[24] has investigated *Tetraclinis articulata*, the "gum sandarach" tree of Morocco and Algeria. He has given an unusually detailed account of microsporogenesis. The mature pollen grain is uninucleate, and approximately three months elapse between pollination and fertilization; while it is 12 months from the first appearance of the strobili to the complete maturity of the seeds. The development of both gametophytes resembles that of other *Cupressus* forms. Wall-formation in the proembryo occurs in passing from the four-nucleate to the eight-nucleate stage, the mature embryo being somewhat variable in the number and arrangement of the cells. More than one tier of cells takes part in suspensor formation. In the mature embryos three, four, and five cotyledons were found. One of the interesting cytological features is the segregation of the chromosomes into two groups in the prophase of the first division of the fertilized egg. This is taken to be an evidence of the continued individuality of male and female chromosomes. The chromosome numbers were found to be 12 and 24. SAXTON is inclined to believe that the *Callitris* group was derived from the *Cupressus* group through some plant resembling *Tetraclinis*. He traces a geographic line of evolution from northern to southern Africa, and thence by means of former antarctic land connection to Australia. This would make *Widdringtonia* the most primitive of the *Callitris* forms.—J. M. C.

The absorption of water by aerial organs.—It is now pretty generally believed that the absorption of water by the aerial organs of vascular plants is rarely a thing of consequence outside of the Bromeliaceae, although it has been known for a long time that flaccid leaves immersed in water recover their turgescence. Experiments made by various investigators have shown that the cell sap of *Salicornia* and other salt marsh plants has an osmotic pressure considerably above that of sea water. Hence the question arose with Miss HALKET as to the possibility of such plants absorbing water when immersed at high tide. It was found that the aerial organs of *Salicornia* plants can absorb water from a 3 per cent solution of sodium chloride, and a larger amount from distilled water.[25] As might be expected, the amount absorbed is greatly increased if the plants are allowed to transpire freely before immersion, without being able to absorb water through the roots. Experiments made on non-halophytic plants under similar conditions resulted in a loss of water rather than in absorption, hence it is concluded that the absorption noted in the salt marsh plants

---

[24] SAXTON, W. T., Contributions to the life-history of *Tetraclinis articulata* Masters, with some notes on the phylogeny of the Cupressoïdeae and Calltroïdeae. Ann. Botany **27**:577–605. *figs. 9. pls. 44–46.* 1913.

[25] HALKET, ANN C., Some experiments on absorption by the aerial parts of certain salt-marsh plants. New Phytol. **10**:121–139. 1911.